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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,642	01/06/2005	Nuredin Kapaj	NOTAR-15US	9539

7663 7590 03/17/2006

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EXAMINER

LIN, ING HOUR

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/520,642

Applicant(s)

KAPAJ ET AL.

Examiner

Ing-Hour Lin

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-2, 4-6, 8-12, and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 10029046 in view of Takeuchi et al.

JP '046 (see abstract) teaches the claimed metal strip continuous casting plant, comprising: two counter-rotating rolls (1a, 1b) and a pair of strip temperature regulation device arranged below the rolls and comprising two temperature regulating (cooling) panels 25a, 25b, and a plurality of nozzle headers 24a, 24b located externally alongside the panels for spraying gas towards the strip 8.

JP '046 fails to teach the use of refractory material and pivot shaft for the cooling panel. However, Takeuchi et al (col. 5, lines 16+) teach the use of refractory material including heat resistant steel and ceramic (col. 9, lines 28) for the purpose of forming radiant cooling panels (tubes 53) and teach the use of pivot shafts 83 for purpose of control inclined angle of the pair of cooling panel (flaps 82). It would have been obvious to one having ordinary skill in the art to provide JP '046 the use of refractory material and pivot shaft for the cooling panel as taught by Takeuchi et al in order to effectively control uniform temperature of the casting along its length in a strip temperature regulation device.

4. Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 10029046 in view of Takeuchi et al and further in view of either DE 19757704 or Yoshioka et al.

JP '046 in view of Takeuchi et al fails to teach the use of conduits formed inside the panels. However, DE '704 (col. 2, lines 37+) teaches use of conduits formed inside two temperature regulating panels 18, each panel including three gas conduits (gas 1-3) and a plurality of nozzle headers for spraying gas towards the strip 8 for the purpose of controlling uniform temperature for the cooled strip. Yoshioka et al (col. 7, lines 18+) teach the use of uniform temperature control (col. 8, lines 31+ and Fig. 3) including conduits in a strip temperature regulation device (gas cooler panels 3) and independent nozzle headers 4 for the purpose of blowing the cooling gas and controlling uniform temperature of the steel strip 1 along its length (width). It would have been obvious to one having ordinary skill in the art to provide JP '046 in view of Takeuchi et al the use of conduits formed inside the panels as taught by either

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DE '704 or Yoshioka et al in order to of effectively control uniform temperature of the casting along its length in a strip temperature regulation device.

Response to Arguments

5. Applicant's arguments with respect to claims 1-6 and 8-20 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ing-Hour Lin whose telephone number is (571) 272-1180. The examiner can normally be reached on M-F (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

I.H.L.

I.-H. Lin

3-9-06

**KEVIN KERNS
PRIMARY EXAMINER**

Kevin Kerns 3/15/06